the displayed indicium) to carry out the methods of the present invention. A processor of a device other than a slot machine (e.g., a processor of a casino server or a controller controlling the slot machine) may also be operable to use one or more of the rules. A program storing instructions for the processor may include one or more subroutines governing the use of the one or more rules.

[0167] In various embodiments of the present invention, advantages over traditional mechanical reel slot machines are provided in that the indicia on the reels can be changed dynamically. For example, a given angular surface location on a reel that is currently displaying a cherry symbol may be changed to display a bar symbol. Additionally, rather than showing a static indicium, a reel in accordance with embodiments of the present invention may display an animated indicium (e.g., with eyes blinking or with mouth moving). A reel in accordance with embodiments of the present invention may also dynamically display text. A reel in accordance with embodiments of the present invention may also change the background against which an indicium is displayed, or even display multiple indicia at the same angular surface location. A reel in accordance with embodiments of the present invention may display indicia that are selected by a player. For example, the player may browse the Internet using a browser rendered by the slot machine. The player may find an image displayed on a Web page, and select the image to be displayed as an indicium or as background on one of the display devices. The player may also provide a picture, e.g. of a grandchild or of a pet. The player may scan the picture into the slot machine using an attached scanner, or may give the picture to a casino employee. The casino employee may then scan the picture using a scanner, and may upload the digitized image to the slot machine (e.g., via a casino network). The digitized image may then appear on a display device of the slot machine. Various embodiments provide numerous other possibilities for changing or updating indicia displayed on a display device **335**.

[0168] In one or more embodiments, the ability to change a displayed indicium allows a reel to contain a relatively few number of predefined angular surface locations, while still having the ability to display a relatively large number of indicia. For example, assume it is desirable for a reel to display fifty different indicia. A traditional mechanical reel slot machine would require the reel to have at least fifty predefined surface locations or stops, one for each indicium. Such a reel would likely be large and difficult to manage. In contrast, one embodiment of the present invention might employ a reel with only eight predefined angular surface locations or stops. However, this reel may still be operable to display the fifty different indicia, even within one round of a game. For example, as a display device goes out of view of the player (e.g., by being rotated to a predetermined angle), the indicium currently displayed on the display device can be changed to a different indicium. Therefore, the reel is not limited to displaying only eight indicia, but may display a theoretically limitless number of different indicia.

[0169] Of course, reels of the present invention may have more or less than eight stops, and a memory of the slot machine may store a number of indicia that is greater than the number of stops, the same number of indicia as the number of stops, or a smaller number of indicia than the number of stops (assuming that each indicium of the number of indicia is unique).

[0170] For example, in one or more embodiments, a display memory **340** may store a plurality of indicia as available for display at a particular angular surface location of a reel or on a particular display device **335** of a reel. The reel processor **355** (or another processor, such as processor **205**) may receive reel position signals from, for example, photo sensors on the reel passing in front of a fixed laser. Based on the reel position signals, the reel processor **355** determines a particular display device is in the 12:00 position. The reel processor **355** may thereby instruct the display device **335** to display a particular indicium of the plurality of indicia stored in memory.

[0171] Note that many existing slot machines use a physical reel that is controlled in accordance with a virtual reel stored in the memory of the slot machines. The physical reel is made to stop so as to display an indicium already selected from the virtual reel using a random number generator. Therefore, with existing slot machines, the physical reel must have at least as many stops as the virtual reel has unique indicia. In contrast, reels of the present invention can have many fewer stops than the number of unique indicia stored in memory as available for display on the one or more display devices of the reel.

[0172] Various embodiments of the present invention improve upon existing slot machines by allowing a reel to stop its spinning motion on its own. In other words, in one or more embodiments a reel in accordance with embodiments of the present invention does not have to artificially be stopped such that a particular surface location is displayed along a payline of the slot machine. Rather, a reel may be allowed to stop by virtue of frictional forces (e.g., without a motor actively speeding or slowing its motion, and without a brake actively slowing its motion). Even though a reel is allowed to stop virtually on its own, a processor of the slot machine (e.g., processor **205** and/or reel processor **355**) may still cause the reel to display a desired indicium (e.g., an indicium selected using a random number generator) along the payline of the slot machine when the reel stops rotating. The processor of the slot machine may accomplish this by determining (e.g., using laws of physics) the surface location that will be displayed along the payline of the slot machine when the reel stops its rotation, and by instructing the display device of the surface location to display the selected indicium. The processor may determine the angular surface location that will be displayed along the payline when the reel stops rotating in various ways. For example, the processor may receive periodic indications of the current angular position of a surface location as the reel is rotating. The processor may determine the speed of the reel by measuring the time difference between when a particular surface location of the reel reaches a first angular position and when the particular surface location of the reel reaches a second angular position. Knowing the physical characteristics of the reel, such as the moment of inertia about the axis of rotation, the frictional forces acting upon the reel, the air resistance to the rotating reel, etc., the processor may calculate using well known physical equations the surface location which will be displayed along a payline of the slot machine when the reel stops rotating.

[0173] In some embodiments, when the reel gets close to stopping its rotation, the processor may instruct the index arm or the reel controller to bring the reel to a stop so that an indicium is centered along the payline. Otherwise, the